



# **Annual Report on Public Safety Wireless Voice and Data Communications Interoperability in the Commonwealth of Kentucky 2010**

Submitted by  
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*A Report to the Interim Joint Committee on Seniors, Veterans, Military Affairs, and Public Protection and the Interim Joint Committee on State Government on progress and activity by agencies of the Commonwealth to comply with standards to achieve public safety communications interoperability.*





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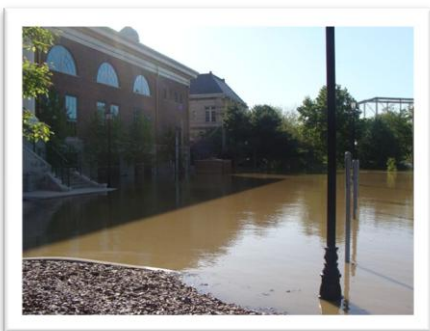
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# Annual Report on Public Safety

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## Executive Summary

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As in previous years 2010 has seen its fair share of weather problems which affected public safety communications across the state. While the ice storm caused a majority of the havoc last year, flooding, thunderstorms, and snowstorms caused the majority of the problems and damage this year. Multiple Kentucky counties were once again declared disaster areas due to snow, flooding, and wind damage.

While many local agencies lost their communications systems, Kentucky's statewide public safety communications infrastructure, the Kentucky Emergency Warning System (KEWS), continued to operate and provide service and support to subscribing public safety agencies.

This marks the first year that the Federal Office of Emergency Communication (OEC) published grant guidance indicating that they would limit communications funding to pure analog or digital Project-25 (TIA-102) radio systems. This was done as a means of reducing the deployment of incompatible proprietary (often called "stovepipe") digital voice systems. The Kentucky Wireless Interoperability Executive Committee (KWIEC) reviewed and debated over two meetings before deciding to officially endorse the OEC guidance in March 2010.



The PSWG also completed the reviews of approximately 180 communications grant requests for technical viability and compliance to the KWIEC and OEC communications interoperability directives and made recommendations to the Director of Kentucky's Office of Homeland Security based on these reviews.

Broadband Data is also being looked at as a means to augment the existing Mobile Data network but the KWIEC delayed a conference to evaluate potential augments until the current climate at the Federal level becomes less ambiguous. The funding, usage,

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implementation, and owner issues associated with broadband data, D-Block, et cetera, is simply too unstable at this point. It is hoped that next year these issues will be decided.



This year also marked the first year that a member of the Public Safety Working Group (PSWG) accompanied members from Kentucky's Office of Homeland Security on their regional grant briefings. The PSWG took this opportunity to brief first responder agencies on the FCC Narrowbanding requirement, the OECs P-25 requirements, applicable KWIEC project review policies, and other general interoperability information. The

questions posed along with the positive feedback received by the members suggest that this is long overdue and should be continued annually.

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## ***Summary Report on Interoperability Programs and Projects***

Reports were requested from responsible agencies concerning their interoperability projects and programs listed below:

### **The Kentucky Emergency Warning System Digital Upgrade**

KEWS East - Most KEWS circuits have been cut onto this new network and are operating without incident. The few issues remaining are being addressed and are expected to be resolved by the end of the quarter. Once all circuits are cut, the state will begin its 60 day performance evaluation and if all goes well, the state will accept the system.

KEWS West – Nearly all the civil work including power upgrades, tower reinforcements, and shelter replacements is complete. The deployment of the radio systems will begin once the KEWS East system is accepted.

### **The Voice Mutual Aid and Interoperability Augmentation**

The system is being expanded to provide additional UHF National Public Safety Telecommunications Council NPSTC channels. Additional circuits on the KEWS network have been requested and new radios ordered. Once deployed, these systems will provide several additional UHF Mutual Aid Voice channels across the state.

### **The Mobile Data Program**

The mobile data network is effectively at capacity. Many users are switching to cellular carrier aircards to provide access to data while mobile. This is unfortunate but understandable in light of the low speed limitations of the 19.2 Kbps Mobile Data network. Once the situation with the national broadband data network becomes clearer, Kentucky must plan on augmenting this network with a high speed system in choke points.

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### **The KYWINS Messenger Program**

The Kentucky Wireless Interoperability Network System (KYWINS) messenger continues to be used in strategic locations but is simply not viable in the low speed mobile data network. No further upgrades can be made to this system until a broadband data augmentation is made in Kentucky.

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## Purpose

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The purpose of this document is to provide the annual report on the progress and activities of the commonwealth to comply with standards to achieve public safety communications interoperability to the Kentucky legislature and responsible committees. This report centers on the efforts of the Kentucky Wireless Interoperability Executive Committee (KWIEC) as the primary body responsible for guiding the state in these endeavors as well as the Public Safety Working Group (PSWG) which serves as the engineering arm of the KWIEC.

This report is submitted as required by KRS 42.738 (1) which states:

- ❖ *KRS 42.738 (1) - The executive director shall report by September 15 annually to the Interim Joint Committee on Seniors, Veterans, Military Affairs, and Public Protection and the Interim Joint Committee on State Government on progress and activity by agencies of the Commonwealth to comply with standards to achieve public safety communications interoperability.*

This report is divided into major and minor sections with appropriate KRS references.

- ↳ Success in meeting the mandates as defined in the Kentucky Revised Statutes
  - ↳ Progress toward the long term and annual goals adopted by the KWIEC
  - ↳ Updates on the operational programs tracked by and reported to the KWIEC
  - ↳ Recommended wireless and interoperability communications Pilots and Projects
  - ↳ Changes made to streamline or simplify the processes used by the KWIEC
  - ↳ Other recommendations for the General Assembly as applicable to public safety communications
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### Authority

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Since its creation in 2003, the KWIEC has operated as prescribed under the provisions and authority of Kentucky Revised Statutes 11-5161, 11-5162, and 11-5163. Over the years they were reviewed and re-codified as required.

In 2009 these statutes were repealed and reenacted as KRS 42.734, KRS 42.736, and KRS 42.738 respectively as part of the cabinet reorganization project as detailed in SB-181.



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## Background



*This section is reprinted from year to year with updates added as required. It is retained to provide readers unfamiliar with the KWIEC a summary of its history and the Bills and the resulting Statutes.*

Three bills over the last seven years have shaped Kentucky's wireless interoperability position. These bills were House Bill 309, House Bill 226, and Senate Bill 181 and are described below.

### HB 309

The Kentucky General Assembly passed HB 309 creating the Kentucky Wireless Interoperability Executive Committee (KWIEC), which is administered through the Commonwealth Office of Technology.

The committee benefits the Commonwealth by:

- ✧ Creating a nationally recognized name, the State Interoperability Executive Committee (SIEC), and structure as recommended by the Federal Communications Commission;
- ✧ Encouraging more involvement from interested agencies with the addition of local representatives from municipal and county government, police, fire, sheriff, EMS, and a 911 dispatch representative;
- ✧ Instituting an annual reporting mechanism whereby the chief information officer updates the Joint Interim Committee on Seniors, Veterans, Military Affairs, and Public Protection, and the Interim Committee on State Government;
- ✧ Addressing communications interoperability, a critically important homeland security issue;
- ✧ Advising and making recommendations to the chief information officer of the Commonwealth regarding strategic wireless initiatives, in order to achieve public safety voice and data communications interoperability.

The entire text of SB-181 is available online at:

<http://www.lrc.ky.gov/record/03rs/hb309.htm>

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### **HB 226**

In 2004, HB 226 was passed by the 2004 General Assembly and signed into law by Governor Ernie Fletcher. The Bill amended KRS 11.5162 to expand the definitions of "frequency," "interoperability," and "standards," and create definitions for "public safety shared infrastructure" and "primary wireless public safety voice or data communications systems," and excludes "911" telephone systems from the definition of "primary wireless public safety voice or data communications systems."

With the passage of HB 226, KRS 11.5163 was amended to include these requirements:

- ✧ The development and recommendation of required architecture and standards will ensure that new or upgraded Commonwealth public safety communications systems will interoperate.
- ✧ The Kentucky Wireless Interoperability Executive Committee shall be responsible for the evaluation and recommendation of all wireless communications architecture, standards, and strategies.
- ✧ All state agencies in the Commonwealth shall present all project plans for primary wireless public safety voice or data communications systems for review and recommendation by the committee, and the committee shall forward the plans to the chief information officer for final approval. Local government entities shall present project plans for primary wireless public safety voice or data communications systems for review and recommendation by the Kentucky Wireless Interoperability Executive Committee.
- ✧ The committee shall develop funding and support plans that provide for the maintenance of and technological upgrades to the public safety shared infrastructure, and shall make recommendations to the chief information officer, the Governor's Office for Policy and Management, and the General Assembly.
- ✧ The chief information officer shall examine the project plans for primary wireless public safety voice or data communications systems of state agencies and shall determine whether they meet the required architecture and standards for primary wireless public safety voice or data communications system.

The entire text of SB-181 is available online at:

<http://www.lrc.ky.gov/record/04rs/hb226.htm>

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### **SB 181**

In 2009, SB 181 was passed by the General Assembly and signed into law by Governor Steve Beshear. With the passage of SB 181, several statutes were repealed and reenacted. As it pertains to the KWIEC the following occurred:

- ↳ KRS 11.5161 was repealed and reenacted as KRS 42.734 without change to content.
- ↳ KRS 11.5162 was repealed and reenacted as KRS 42.736 without change to content.
- ↳ KRS 11.5163 was repealed and reenacted as KRS 42.738 with the following changes.
  - The membership of the KWIEC was reduced to 20 members.
  - The 'Director of 911' position was eliminated as a voting member of the board.

The entire text of SB-181 is available online at:

<http://www.lrc.ky.gov/record/09rs/SB181.htm>

### **Kentucky Revised Statutes**

The KWIEC operates under the laws described in KRS 42.734, KRS 42.736, and KRS 42.738. These statutes are available online at:

<http://www.lrc.ky.gov/KRS/042-00/734.PDF>

<http://www.lrc.ky.gov/KRS/042-00/736.PDF>

<http://www.lrc.ky.gov/KRS/042-00/738.PDF>

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## KWIEC Membership

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Of the twenty KWIEC members the majority are assigned by virtue of the position they hold within their agency while the remaining members are appointed by the Governor. KRS 42.738 (5) describes the makeup of the body and is included below.

- ❖ *KRS 42.738 (5) - The Kentucky Wireless Interoperability Executive Committee shall consist of twenty (20) members as follows:*
  - a) *A person knowledgeable in the field of wireless communications appointed by the executive director who shall serve as chair;*
  - b) *The executive director of the Office of Infrastructure Services, Commonwealth Office of Technology;*
  - c) *The executive director of Kentucky Educational Television, or the executive director's designee;*
  - d) *The chief information officer of the Transportation Cabinet;*
  - e) *The chief information officer of the Justice and Public Safety Cabinet;*
  - f) *The chief information officer of the Department of Kentucky State Police;*
  - g) *The commissioner of the Department of Fish and Wildlife Resources, or the commissioner's designee;*
  - h) *The chief information officer of the Environmental and Public Protection Cabinet;*
  - i) *The director of the Division of Emergency Management, Department of Military Affairs;*
  - j) *The executive director of the Kentucky Office of Homeland Security;*
  - k) *The chief information officer, Department for Public Health, Cabinet for Health and Family Services;*
  - l) *A representative from an institution of postsecondary education appointed by the Governor from a list of three (3) names submitted by the president of the Council on Postsecondary Education;*
  - m) *The executive director of the Center for Rural Development, or the executive director's designee;*
  - n) *A representative from a municipal government to be appointed by the Governor from a list of three (3) names submitted by the Kentucky League of Cities;*
  - o) *A representative from a county government to be appointed by the Governor from a list of three (3) names submitted by the Kentucky Association of Counties;*
  - p) *A representative from a municipal police department to be appointed by the Governor from a list of three (3) names submitted by the Kentucky Association of Chiefs of Police;*
  - q) *A representative from a local fire department to be appointed by the Governor from a list of three (3) names submitted by the Kentucky Association of Fire Chiefs;*
  - r) *A representative from a county sheriff's department to be appointed by the Governor from a list of three (3) names submitted by the Kentucky Sheriffs' Association;*
  - s) *A representative from a local Emergency Medical Services agency to be appointed by the Governor from a list of three (3) names submitted by the Kentucky Board of Emergency Medical Services; and*
  - t) *A representative from a local 911 dispatch center to be appointed by the Governor from a list of three (3) names submitted by the Kentucky Chapter of the National Emergency Number Association/Association of Public Safety Communications Officials.*
- ❖ *KRS 42.738 (6) - Appointed members of the committee shall serve for a two (2) year term. Members who serve by virtue of an office shall serve on the committee while they hold that office.*

Typically members of the Kentucky Wireless Interoperability Executive Committee (KWIEC) served lengthy terms with many executives remaining in their position for several years. This has changed somewhat due to the recent appointment of several new members as well as the departure of old members due to retirements or job cutbacks brought about by the current budget situation.

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As can be seen by the KRS excerpt above, the membership of the KWIEC is staffed by senior decision makers or their designated representatives representing a cross section of agencies with a stake in wireless communications interoperability. This ensures that the key stakeholders have a say in the overall direction and are part of any decision affecting wireless communications interoperability across state and local agencies.

The table below lists the current membership of the KWIEC.

Name	Representing
Jim Barnhart	Chairperson
Steve Rucker	Commonwealth Office of Technology
Michael Harris	Kentucky Educational Television
Dan Mauer	Transportation Cabinet
Don Pendleton	Justice Cabinet
Col. Brad Bates	Kentucky State Police
<EMPTY>	Department of Fish and Wildlife Resources
Ken Jorette	Natural Resources and Environmental Protection
Col. Rodney Hayes	Division of Emergency Management
Mary Pedersen	Kentucky Office of Homeland Security
Rodney Murphy	Cabinet for Health and Family Services
Pamela Collins	Council on Postsecondary Education
Lonnie Lawson	The Center for Rural Development
Rebecca A. Hopkins	Kentucky League of Cities
Ted Collins*	Kentucky Association of Counties
Michael Ward	Kentucky Association of Chiefs of Police
Michael Gribbin*	Association of Fire Chiefs
Wayne Wright	Kentucky Sheriff's Association
Bob Hammonds*	Kentucky Board of Emergency Medical Services
Mitch Mitchell	Kentucky National Emergency Number Association

**Table 1 – KWIEC Membership**

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\* Appointments occurred Sep 2, 2010

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As previously reported, after the KWIEC was informed of the KRS change eliminating the 911 slot, the KWIEC voted to request the Governor reinstate the 911 coordinator. Since then, the request was sent to the legislative liaison who has been asked to have this decision revised and reinstated into the KRS to ensure that this critical stakeholder continues to have a voice in the KWIEC.

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## KWIEC Meetings

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- ❖ *KRS 42.738 (7) - The committee shall meet quarterly, or as often as necessary for the conduct of its business. A majority of the members shall constitute a quorum for the transaction of business. Members' designees shall have voting privileges at committee meetings.*

The members of the KWIEC met five times since the 2009 report. Four quarterly meetings were held as planned and one additional (continuation) meeting was held to discuss endorsing Project 25 as a standard in the Commonwealth.

Transcripts of these meetings are available on the KWIEC website at:

<http://www.kwiec.ky.gov/execcommittee/minutes.htm>

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## KWIEC Support

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The KWIEC is augmented and supported by the following.

### ***KWIEC Website***

The website ([www.kwiec.ky.gov](http://www.kwiec.ky.gov)) continues to be used as the KWIEC's primary system for presenting information to first responder agencies and the general public. Information including meetings, current events, industry specific information, frequently required documents and URLs are a single click away from the primary page.

The website remains the single best means for the KWIEC to make information available to interested parties. It lists wireless interoperability events, policies, and decisions of the KWIEC to the general public and interested public safety agencies. The website also allows citizens to use an email link to request information, make inquiries, or contact the membership of the KWIEC or the PSWG through the Facilitator.



The website also has become more important in the grant process whereby agencies can download the forms needed to submit wireless projects to the KWIEC for evaluation. In keeping with the Governor's policy of transparency, the KWIEC website will continue to provide historical information that includes KWIEC meeting minutes, special event announcements, conference information, research documents, web links, and other issues and interoperability programs.

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### ***Dedicated KWIEC Facilitator***

The KWIEC plays a vital role in guiding the public safety wireless communications and interoperability efforts, projects, and initiatives of the commonwealth. As with all committees, the KWIEC and its subcommittees and workgroups require support. To that end, the Commissioner of the Commonwealth Office of Technology has assigned a dedicated KWIEC Facilitator to provide the KWIEC with a single Point of Contact with which to work. The Facilitator will act as the primary point of contact for any issues dealing with the KWIEC and will maintain the KWIEC website and the listserv.

In addition to supporting the KWIEC, the Facilitator will assist any workgroups or subcommittees dedicated to the KWIEC. The Facilitator will act as a non-voting member of these groups to avoid any conflict of interest and will contribute to each of these groups as desired by the chair of that group.

The individual assigned to this position will also prescreen all project assessments and work with local and state agencies in submitting their project assessments. Projects which fall into the pre-approved category will be reviewed, evaluated, and approved by the Facilitator. The Facilitator will also work with granting agencies such as the Kentucky Office of Homeland Security and the Justice Department to ensure that the KRS is adhered to for primary wireless communications projects.

The individual assigned to this position will also plan and conduct each meeting of the KWIEC and will be available to support any KWIEC members with KWIEC business when requested. This individual will also work with the Governor's Office, the Legislative Research Commission, and other key agencies in support of the KWIEC.

Finally, the Facilitator will write the Annual Public Safety Report (this report) with input from key agencies, schedule its printing if desired, and provide it to the appropriate committees.

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## **Public Safety Working Group (PSWG)**

- ❖ *KRS 42.738 (9) - The Public Safety Working Group is hereby created for the primary purpose of fostering cooperation, planning, and development of the public safety frequency spectrum as regulated by the Federal Communications Commission, including the 700 MHz public safety band. The group shall endeavor to bring about a seamless, coordinated, and integrated public safety communications network for the safe, effective, and efficient protection of life and property. The Public Safety Working Group membership and other working group memberships deemed necessary shall be appointed by the chair of the Kentucky Wireless Interoperability Executive Committee.*

The Public Safety Working Group has been described as the Engineering Arm of the KWIEC since it is comprised of subject matter experts in wireless communications. Furthermore, the group is chaired by the state wireless communication interoperability coordinator and directly supported by the KWIEC Facilitator. When the KWIEC makes a requirement, this group is typically responsible to execute it. This group evaluates all wireless communications architecture, standards, and strategies of interest to the KWIEC and then reports on their findings and recommendations.

The Public Safety Working Group has been tasked with the following responsibilities:

- Evaluate new technology and technical solutions to planned projects.
- Using the State Communications Interoperability Plan (SCIP) as a source, begin efforts to create a long term (ten year or more) plan which makes the eventual voice and data convergence of technology a priority.
- Publish recommended minimum requirements for all radio systems.
- Maintain an inventory of State radio assets.
- Conduct an annual review of State radio infrastructures.
- Recommend projects to the KWIEC.
- Provide periodic briefings to the KWIEC as required.

The members of the PSWG are shown in the table below.

<b>Name</b>	<b>Representing</b>	<b>Position</b>
Derek Nesselrode	State Interoperability Coordinator / KSP	Chair
Bob Stephens	Office of Emergency Management	Co-Chair
Danny Ball	Center for Rural Development	Member
Dave Barker	Department of Military Affairs	Member
Drew Chandler	Department of Health Services	Member
Jeff Mitchell	Commonwealth Office of Technology/KEWS	Member
Ron Pannell	Louisville Metro Government	Member
Paul See	Lexington Division of Fire & ES	Member

**Table 2 – PSWG Membership**

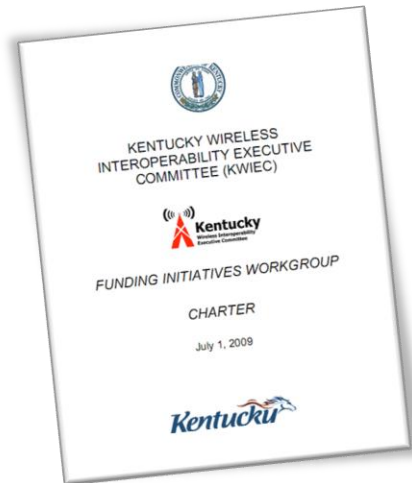
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## **Funding Initiatives Working Group (FIWG)**

- ❖ *KRS 42.738 (3) - The committee shall develop funding and support plans that provide for the maintenance of and technological upgrades to the public safety shared infrastructure, and shall make recommendations to the executive director, the Governor's Office for Policy and Management, and the General Assembly.*
- ❖ *KRS 42.736 (5) - Public safety shared infrastructure" means any component that by the nature of its function or physical characteristics can be used by multiple agencies to implement or support primary wireless public safety voice or data communications systems. This shall include but not be limited to towers, equipment shelters, radios, and other electronic equipment, backbone communications networks, and communications-related software.*
- ❖ *KRS 42.738 (9) - ... The Public Safety Working Group membership and other working group memberships deemed necessary shall be appointed by the chair of the Kentucky Wireless Interoperability Executive Committee.*
- ❖ *KRS 42.738 (10) - The committee may establish additional working groups as determined by the committee.*

The Funding Initiatives Workgroup was created in June 2009 by a unanimous vote of the KWIEC. This group was created to address the concerns of the KWIEC membership which felt that additional resources were needed to meet the requirement as described in the KRS.

Recently the chairman of the group has left state government and the chair position has been left vacant. This will be addressed at an upcoming KWIEC meeting. The current membership is listed in the table below.



Name	Representing	Position
<EMPTY>	Department of Fish and Wildlife Resources	Chair
LTC Brad Bates	Kentucky State Police	Member
Lonnie Lawson	Center for Rural Development	Member

**Table 3 – FIWG Membership**



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## KWIEC Mandates and Goals

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### **KWIEC Mandates**

The KWIEC mandates as described by KRS 42.738 are listed below. They have been divided by KRS subsection to properly describe the actions taken by the KWIEC in each of these areas and are expanded on in the following sections.

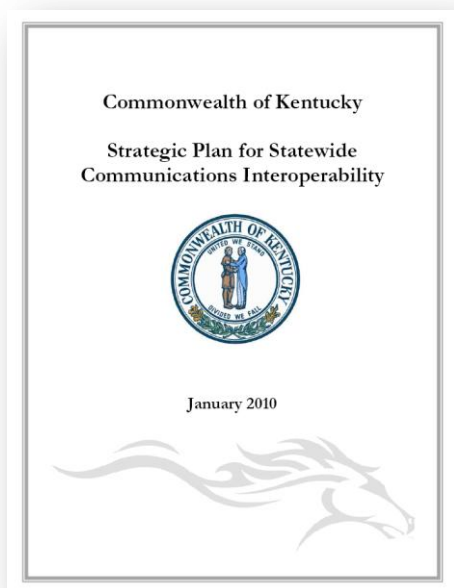
- I. *KRS 42.738 (1) - The executive director shall establish and implement a statewide public safety interoperability plan. This plan shall include the development of required architecture and standards that will ensure that the new or upgraded Commonwealth public safety communications systems will interoperate.*
- II. *KRS 42.738 (1) (Continued) - The Kentucky Wireless Interoperability Executive Committee shall be responsible for the evaluation of all wireless communications architecture, standards, and strategies. The executive director shall provide direction, stewardship, leadership, and general oversight of information technology and information resources.*
- III. *KRS 42.738 (1) (Continued) - The executive director shall report by September 15<sup>th</sup> annually to the Interim Joint Committee on Seniors, Veterans, Military Affairs, and Public Protection and the Interim Joint Committee on State Government on progress and activity by agencies of the Commonwealth to comply with standards to achieve public safety communications interoperability.*
- IV. *KRS 42.738 (2) – The Kentucky Wireless Interoperability Executive Committee shall serve as the advisory body for all wireless communications strategies presented by agencies of the Commonwealth and local governments. All state agencies in the Commonwealth shall present all project plans for primary wireless public safety voice or data communications systems for review and recommendation by the committee and the committee shall forward the plans to the chief information officer for final approval. Local government entities shall present project plans for primary wireless public safety voice or data communications systems for review and recommendation by the Kentucky Wireless Interoperability Executive Committee.*
- V. *KRS 42.738 (3) - The committee shall develop funding and support plans that provide for the maintenance of and technological upgrades to the public safety shared infrastructure, and shall make recommendations to the executive director, the Governor's Office for Policy and Management, and the General Assembly.*
- VI. *KRS 42.738 (4) - The executive director shall examine the project plans for primary wireless public safety voice or data communications systems of state agencies as required by subsection (2) of this section, and shall determine whether they meet the required architecture and standards for primary wireless public safety voice or data communications system.*

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## Establish and Implement the Statewide Public Safety Interoperability Plan

- ❖ *KRS 42.738 (1) - The executive director shall establish and implement a statewide public safety interoperability plan. This plan shall include the development of required architecture and standards that will ensure that the new or upgraded Commonwealth public safety communications systems will interoperate.*



Kentucky's Statewide Communications Interoperability Plan (SCIP)<sup>†</sup> which lists near term and long term interoperability initiatives remains the state's primary tool for planning and documenting interoperability initiatives. As part of the ongoing annual review process, the plan was reviewed, updated, and approved for release by the KWIEC in January 2010.

This newest revision was provided to the Federal Office of Emergency Communications (OEC) shortly after it was approved for publishing. Members of the OEC reviewed Kentucky's plan and made positive comments on it, however they indicated that they had made several minor changes to their National Emergency

Communications Plan (NECP) which might affect Kentucky's SCIP. They offered to meet with members of the KWIEC and PSWG to provide a briefing on these changes. The PSWG hosted a meeting with the OEC on June 9<sup>th</sup>, 2010, and provided a follow up briefing to the KWIEC. The discussion centered on ensuring there was a shared understanding of the NECP Goals, and offering assistance in an Implementation Plan that best works for Kentucky. Immediate revisions were not needed in Kentucky's SCIP and if any changes are needed, they will be made in the next revision cycle.

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<sup>†</sup> This plan can be found on the KWIEC website at [www.kwiec.ky.gov](http://www.kwiec.ky.gov) and is available for download as a pdf file.

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## Evaluation of Wireless Communications Architecture, Standards and Strategies

- ❖ *KRS 42.738 (1) (Continued) - The Kentucky Wireless Interoperability Executive Committee shall be responsible for the evaluation of all wireless communications architecture, standards, and strategies. The executive director shall provide direction, stewardship, leadership, and general oversight of information technology and information resources.*

Just as in 2009, the KWIEC still has three primary architectural and standards issues that must be considered. They are P-25, the FCC Narrowbanding mandate, and the 'D Block' frequencies.

### P-25

The Project -25 standard is easily the most debated topic regarding voice communications interoperability across the nation. While P-25 may not be the best digital technology, it is nonetheless recognized as the best standard we have for voice communications interoperability. It continues to be the only open-standard technology available for use by any manufacturer. Comments have been made about P-25 being dated, but in truth it is an evolving standard that has at least two more planned phases.

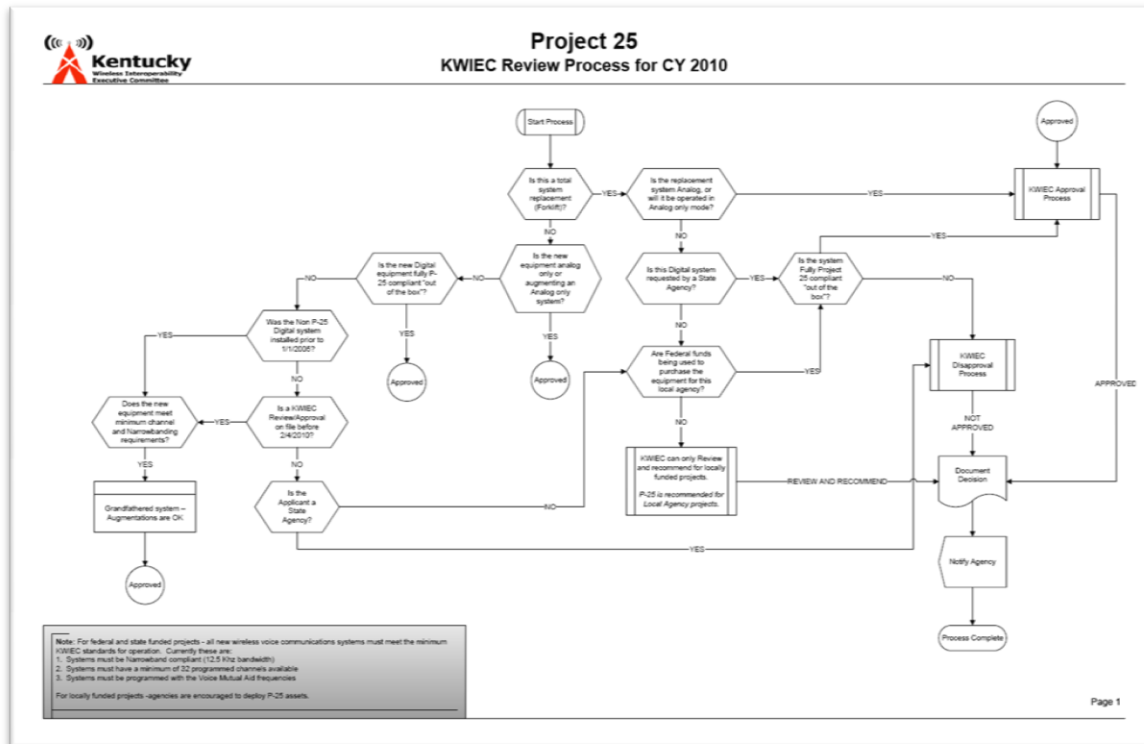
The KWIEC finally cleared a challenging hurdle this year by officially endorsing the Office of Emergency Communications' voice interoperability guidance which required P-25 for new radio system deployments. In last year's report it was mentioned that one of the issues slowing the adoption of P-25 was the fact that it had not been federally mandated which is now at least partially rectified. The other major issue addressed was the cost disparity between P-25, analog, and proprietary digital radio systems. The cost of P-25 systems has dropped dramatically and where the cost could be two or three times as much before, the cost disparity now averages out to be about 30% more for P-25.

The P-25 standard remains the only way that digital interoperability can be achieved at the radio level. There are various other ways to implement partial digital interoperability through cross-connect systems, hybrid radio systems, and other work-around strategies, but none of these offer the out-of-the-box interoperability of P-25.

All major statewide voice radio networks such as those employed by the Kentucky State Police, and the Department of Military Affairs are P-25 compliant. With the KWIEC holding approval authority on state agencies, the commonwealth can at least ensure that state level agencies move toward interoperability.

# Annual Report on Public Safety

The flowchart shown below was endorsed by the KWIEC and is being used to determine whether a non P-25 project is grandfathered or not. A full size copy is available for download from the KWIEC website.



**Figure 1 – Project 25 KWIEC Review Process**

This endorsement caused an outcry from many local agencies which were attempting to acquire grant funding for non-P-25 systems. Fortunately, at least for some of these agencies, the OEC did allow for waivers of their grant policy for “compelling reasons”. Several waivers were in fact recommended due to previous deployments where agencies had already begun deployment and committed to a system. Others who had not started their projects were required to comply with the guidance.

# Annual Report on Public Safety

## Narrowbanding

Easily the most important issue affecting continued operability and interoperability across the nation is the upcoming narrowband requirement. As reported last year, the FCC has required the bandwidth of frequencies below 512 MHz to be reduced from 25 KHz (wideband) to 12.5 KHz (narrowband) by January 1, 2013. The FCC calls this process refarming<sup>†</sup> and it affects almost all of Kentucky's public safety agencies. This is the biggest concern for Kentucky's continued public safety communications today and has potentially catastrophic consequences if not managed early.

Typically, replacement of radios will be required to comply with this mandate, but fortunately new radios being manufactured are narrowband compliant. Since replacement of radios is required to maintain operability, it would make sense to require newly purchased radios to be interoperable as well; this is why P-25 is being pushed.

Approximately 2/3<sup>rd</sup>s of Kentucky's first responders use frequencies in the 150 MHz VHF band while just under 1/3<sup>rd</sup> use frequencies in the 450 MHz UHF band. These bands will be refarmed as show in the graphics below.

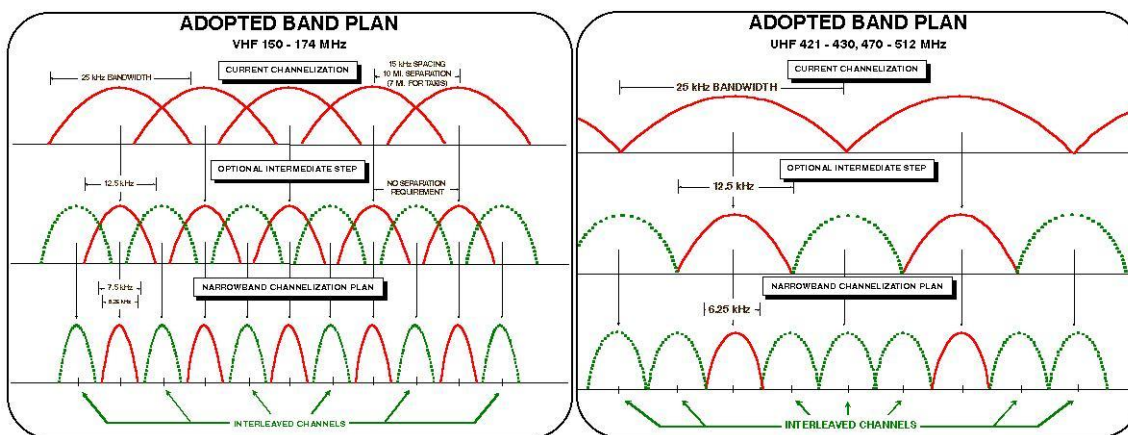


Figure 2 – Refarming for Narrowband

<sup>†</sup> The final channel refarming plan depends on several factors including channel type (voice/data, exclusive use, shared, or adjacent to shared), channel location in the spectrum, and other factors.

# Annual Report on Public Safety

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Approximately 3% of first responder agencies use radios in the 800 MHz band and will not be affected by the current refarming plan. This may change as the FCC eventually moves to 6.25 KHz (ultra-narrowband) at some undisclosed future date.

Replacements of radios to meet this mandate must be approached with an intelligent plan in mind. It is impossible to fund the complete replacement of all radio systems across Kentucky in the time remaining. This is the reason the State Wireless Interoperability Coordinator and the KWIEC Chairperson signed a joint letter to the Kentucky Office of Homeland Security asking that they prioritize Narrowbanding over other less critical communications projects.

As a general rule, handheld and mobile radios are usually substantially less expensive than base station and repeater systems. Add to this, the fact that the handheld and mobile can be used without a repeater in simplex mode, and it can be seen that they should be considered as a first priority in replacement. Being far more expensive, but often making the difference between communicating and not, the repeaters must be budgeted but may need to be a second priority.

## **Important Narrowbanding Dates**

January 1, 2011

- The FCC will not grant or consider applications of 25 kHz voice channels.
- New applications must be 12.5 kHz or less.
- No 25 kHz expansion of existing systems will be permitted.

January 1, 2013

- All existing licenses must operate with a bandwidth of 12.5 KHz or less (narrowband). Failure to comply with the January 1, 2013 deadline results in cancellation of license.
- The FCC will prohibit manufacturing or importation of new equipment that operates on 25 kHz channels.
- New equipment submitted to FCC for type-acceptance must be capable of operating in 12.5 kHz and 6.25 kHz mode.

Any agency using wideband channels after January 1, 2013 is subject to:

- Substantial fines of potentially thousands of dollars per day per channel
  - Revocation of FCC licenses
-

## Annual Report on Public Safety

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It should also be noted that operating at 25 KHz in a 12.5 kHz channel slot may cause interference or connection failures to other agencies' assigned channels adjacent to the offending user. This is why the FCC will not permit operation in this mode past their deadline.

# Annual Report on Public Safety

## 'D' Block

As was reported last year, the decommissioning of the old and inefficient analog television stations across the nation in June 2009 created a huge number of potential voice and/or broadband channels in the slots that they previously occupied. In an oversimplified depiction, the information below is intended to give the reader an idea of how significant the recovery of this bandwidth is. Consider the following:

- Each analog television station
  - occupied 6 MHz of spectrum (6000 KHz)
  - is amplified to tens of thousands of watts
  - requires minimum separation for reuse of frequency 154.5 to 204.5 miles
- Each narrowband voice channel
  - occupies 12.5 KHz of spectrum
  - is amplified to 35, 50, or 100 watts typically
  - requires minimum separation for reuse of frequency 30 miles

Simple math shows that 480 narrowband voice channels can be used in the place of a single analog TV station channel. Accounting for reduced distance requirements, the same bandwidth could potentially be reused outside of the minimum separation distance, potentially providing thousands of voice channels in the same area reserved for a single TV station. More importantly, the contiguous block of frequencies being released could be used to provide multiple broadband data channels. As shown in the figure below, it can be seen that there truly is a large amount of bandwidth being made available.

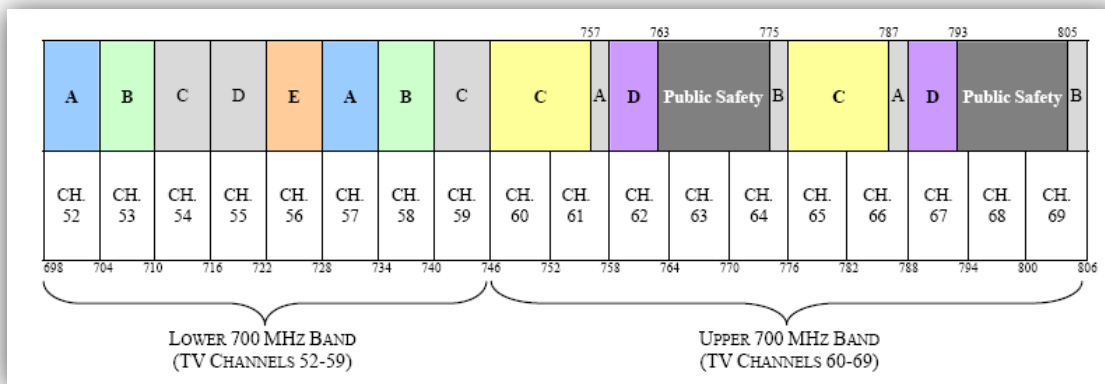


Figure 3 – Revised 700 MHz Block Plan



## Annual Report on Public Safety

### Background and current use of the “D” block

In anticipation of the release of the TV frequencies, the Federal Communications Commission (FCC) divided up and pre-auctioned off as many of these frequencies as they could by early 2008. Notice and results of this auction can be found on the FCC website under the Auction 73 – 700MHz block at the following location on their website.

[http://wireless.fcc.gov/auctions/default.htm?job=auction\\_factsheet&id=73](http://wireless.fcc.gov/auctions/default.htm?job=auction_factsheet&id=73)

Of the 1099 licenses offered at Auction 73 in this newly released portion of the 700 MHz block, all but nine were won. Of importance to the first responders in Kentucky is the frequency range in the upper 700MHz band known as the “D Block” shown highlighted in violet in Figures 3 and 4.

Block	Frequencies (MHz)	Bandwidth	Pairing	Area Type	Licenses
A	698-704, 728-734	12 MHz	2 x 6 MHz	EA	176
B	704-710, 734-740	12 MHz	2 x 6 MHz	CMA	734
C	710-716, 740-746	12 MHz	2 x 6 MHz	CMA	734
D	716-722	6 MHz	unpaired	EAG	6
E	722-728	6 MHz	unpaired	EA	176
C	746-757, 776-787	22 MHz	2 x 11 MHz	REAG	12
A	757-758, 787-788	2 MHz	2 x 1 MHz	MEA	52
D	758-763, 788-793	10 MHz	2 x 5 MHz	Nationwide	1 *
B	775-776, 805-806	2 MHz	2 x 1 MHz	MEA	52

\* Subject to conditions respecting a public/private partnership.

The blocks shaded above in gray (Lower 700 MHz Band C and D Blocks and Upper 700 MHz Band A and B Blocks) were auctioned prior to Auction 73.

Figure 4 – Revised 700 MHz License Plan

The “D Block” was offered at Auction 73 as a single nationwide license with strict usage requirements mandating a public/private partnership. Since this block was not purchased, the FCC was forced to reconsider its initial plan, spurring an ongoing debate over the best use of this frequency range since then.

# Annual Report on Public Safety

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## **Request to Congress**

Many recommendations have been made to the FCC for the D Block's use with most states asking that a large portion be allocated directly toward public safety use. The KWIEC was briefed on this issue and then voted to join other states in this initiative by sending a letter to the FCC in October 2008 supporting the reallocation of this spectrum to public safety use. These states have been joined by other associations and agencies representing first responders in this request. Most notable is the Association of Public Safety Communications Officials (APCO<sup>§</sup>) which has joined in this goal and is asking Congress to get involved and push to allocate a larger portion of this frequency block to address the current and expected broadband public safety requirements.

Most recently, agency leaders across the country representing police, fire and emergency medical service have united to form the Public Safety Alliance (PSA). They have added their voice to others asking Congress to pass legislation that would allocate the 700-MHz D-Block spectrum to public safety and also fund the subsequent building of a nationwide broadband network. Collectively, we are heading in the right direction; Senators McCain and Lieberman recently introduced legislation to reallocate the D Block to public safety. It is too early to be sure how this will conclude, but at least for now the pendulum is swinging toward public safety.

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<sup>§</sup> APCO is the agency responsible for the creation of the P-25 digital voice standard

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# Annual Report on Public Safety

## Report on Compliance

- ❖ *KRS 42.738 (1) (Continued) - The executive director shall report by September 15<sup>th</sup> annually to the Interim Joint Committee on Seniors, Veterans, Military Affairs, and Public Protection and the Interim Joint Committee on State Government on progress and activity by agencies of the Commonwealth to comply with standards to achieve public safety communications interoperability.*

Kentucky continues to use the SAFECOM<sup>\*\*</sup> Interoperability Continuum to measure its interoperability level as desired by the Office of Emergency Communications. This report describes the activities and progress made toward achieving public safety communications interoperability.

As reported in 2009, Kentucky falls to the right side of this continuum and has not changed since last year. We continue to improve on what works for us and tweak areas that require adjustments. Summary explanations are presented in the following pages.

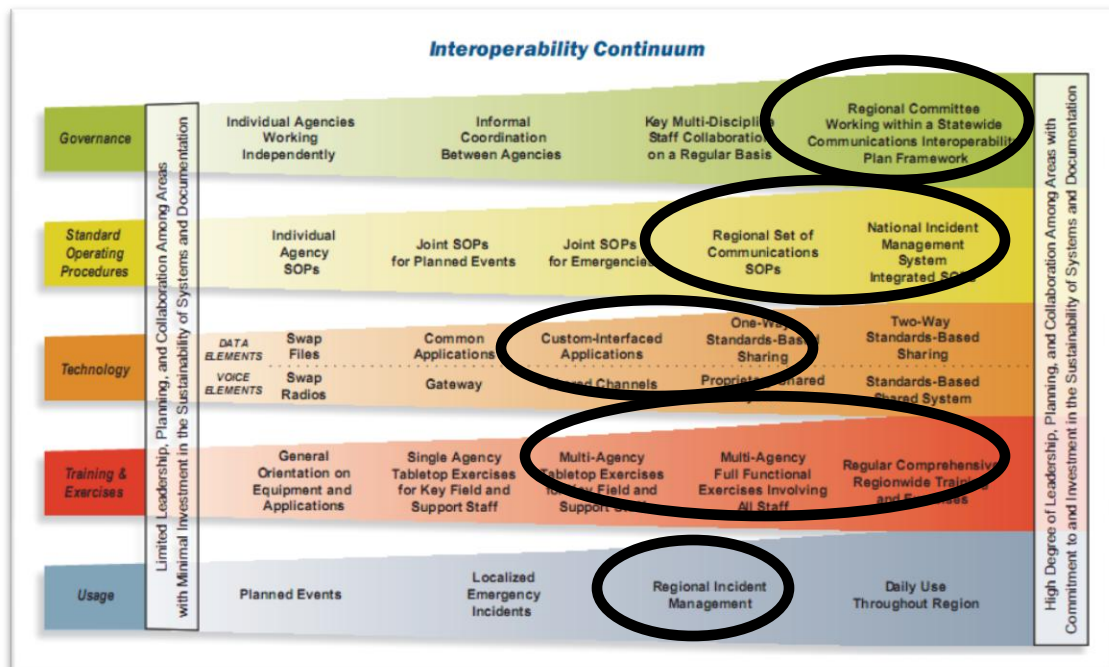


Figure 5 – Kentucky's Interoperability Continuum

<sup>\*\*</sup> SAFECOM is a Homeland Security interoperability program

# Annual Report on Public Safety

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## Summary Explanations

### Governance

The KWIEC is the statewide committee which works with regional agencies such as the Kentucky State Police headquarters elements and the Department of Military Affairs regional Posts, Armories, and Depots. The makeup of the KWIEC also has regional representation including the association of Sheriffs, Fire, and others.

### Standard Operating Procedures (SOPs)

Depending on the agency and incident, Kentucky covers both Regional SOPs and National Incident Management System (NIMS) SOPs. Kentucky uses and trains its first responders on NIMS recommendations and requirements and regional SOPs are written to comply with NIMS requirements.

### Technology

Kentucky has implemented a network of “Shared Channels” for its means of interoperable voice communications through its Voice Mutual Aid Program. Kentucky has implemented a “Proprietary Shared System” for its means of interoperable data communications through its Mobile Data Network. Kentucky was also in the early stages of evaluating broadband data, but has opted to wait until the FCC makes a firm decision on the national broadband network before proceeding.

### Training and Exercise

Kentucky has conducted several exercises in support of the World Equestrian Games and the Kentucky Derby over this last year. Several minor local and regional exercises were conducted by local agencies without state involvement. It is recognized that Kentucky needs to develop a more comprehensive long term recurring exercise and training program owned by an accountable agency.

### Usage

Regional incident management is used and exercised in Kentucky. This aligns well with our voice interoperability system which uses KSP regional monitoring.

### COM-L Training

No additional COM-L training classes were hosted this year due to funding issues. Plans to conduct training in 2011 are already underway, and funding using the Chemical Stockpile Emergency Preparedness Program (CSEPP) is being considered.

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## Primary Wireless Communications – Review of Project Plans

- ## Local Level Project Assessments

This list includes:

- Any project on the list is considered pre-approved and is handled entirely by the Facilitator. The Facilitator will send back a signed form to the local agencies and copy any granting agencies on the approval.

Every effort has been made to make it simpler for the local agencies to properly submit their projects for review, however it is known that many agencies have not submitted their projects for review. This is another reason that members of the PSWG are briefing local agencies at the grants workshops.

[illegible]

# Annual Report on Public Safety

## Local Agency Project Assessment Form

This form was originally created and approved for use by the KWIEC in 2009 with a primary purpose of simplifying the local agency assessment process. The form continues to evolve and is expected to have annual revisions as granting agencies and reviewers request different and updated information from these local agencies. As reported previously, Excel was used as the base program since most agencies have access to this program and it is easy to maintain and update.

For 2010 the local agency assessment form was revised as shown in Figure 6 below.

KWIEC Project Assessment Summary Information for Projects in CY 2010			
Granting Agency Project #		PROJECT TYPE: <input checked="" type="radio"/> Data <input type="radio"/> Voice <input type="radio"/> Infrastructure <input type="radio"/> Other	
Short Project Title:		KWIEC Tracking # →	
<b>Project Contact and Agency Information</b>			
Project Manager:		E-Mail:	Phone #:
Agency Name:		Agency Type: (Select One)	Area: #N/A
City:		County: (Select Your County)	Est. Pop: #N/A
		Zip Code:	Avg. Den: #N/A
<b>Project Information</b>			
Does this project involve improving, updating, or replacing the primary means of communications for wireless voice or data? <input checked="" type="radio"/> Yes - This involves a primary system <input type="radio"/> No - This is a secondary or backup system			
<b>Project Description</b> (Do not justify the Project - Explain the equipment, system, or infrastructure you intend to deploy. If you do not have enough room, please attach an equipment list and indicate so below. Indicate cost below.)			
Voice systems →		Radio Class & Type: (Select One)	
Data systems →		RF Coverage Verified by: (Select One)	
Infrastructure →		Will new FCC licenses be required? <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	
Other (Describe) →		Will this completely replace an existing system? <input type="radio"/> Yes <input checked="" type="radio"/> No	
<b>Program Funding &amp; Estimated Purchases</b>			
Funding Agency: (Select One)		Checklist	
Has Project Funding Been Awarded/Approved? <input type="radio"/> Yes <input type="radio"/> Partial <input checked="" type="radio"/> No		Equipment List ( Make and Model - Required for <u>all</u> Projects) <input type="checkbox"/> Attached	
→ If yes - Available Grant/Budget		Vendor Quote / Proposal (As applicable) <input type="checkbox"/> Attached	
Grant Number (If Applicable)		Propagation Studies (For Infrastructure Projects) <input type="checkbox"/> Attached	
Is this a multi year Project (not fully funded in the first year)? <input type="radio"/> Yes <input checked="" type="radio"/> No		Network Diagram (For Infrastructure Projects) <input type="checkbox"/> Attached	
How will long term/recurring costs be paid? (Select One)		Will the State Price Contract be Used? <input checked="" type="radio"/> Yes <input type="radio"/> No	
		Total \$ -	
<b>Program Participation &amp; Partnerships</b>			
Participating in State Programs		Partnerships (List agencies that benefit from partnerships due to this project)	
Voice Mutual Aid and Interoperability <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		Type of Agency (Fire/Police/EMS/etc)	
Crime Statistics Reporting (KSP) <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A		Agency	
Other Comments			

Email completed form to - CharlesR.Miller@ky.gov

KWIEC Wireless Project Assessment  
Rev Mar 2010

Figure 6 – Local Agency Project Summary Form 2010

## Annual Report on Public Safety

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### ***Funding and Support of the public safety shared infrastructure***

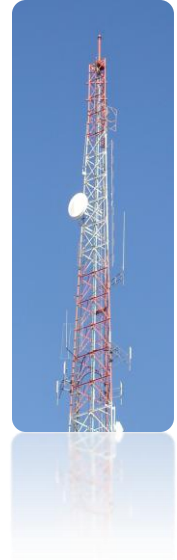
- ❖ *KRS 42.738 (3) - The committee shall develop funding and support plans that provide for the maintenance of and technological upgrades to the public safety shared infrastructure, and shall make recommendations to the executive director, the Governor's Office for Policy and Management, and the General Assembly.*

As reported earlier in this document, the Funding Initiatives Workgroup was created in June 2009 to address this issue going forward.

The public safety shared infrastructure known as the Kentucky Emergency Warning System (KEWS) is currently undergoing a \$45 Million upgrade which is expected to be complete in 2012. The new system currently has traffic on over 80 sites and while behind its initial schedule, is progressing.

The system has new and upgraded power and grounding systems and improved shelters and compounds. When complete, it will be an IP based self healing network capable of carrying bandwidth on demand of up to 155Mbps.

Long term support, maintenance, and upgrades of this network will be covered by fees charged to customers using the system.





# Annual Report on Public Safety

## State Level Project Assessments

- ❖ *KRS 42.738 (4) - The executive director shall examine the project plans for primary wireless public safety voice or data communications systems of state agencies as required by subsection (2) of this section, and shall determine whether they meet the required architecture and standards for primary wireless public safety voice or data communications system.*

The state agency project assessment process has not changed since it was instituted. This process continues to require a complete project plan be submitted to the KWIEC for review. Since the typically high cost and overall importance of these statewide projects is vital to setting the long term direction of the state, taking a wrong turn at the state level could potentially cause problems for years. For this reason, state level wireless projects will continue to go through the entire review process and must still be approved in writing.



The state level assessment process continues to follow the flowcharted process shown in the figure below.

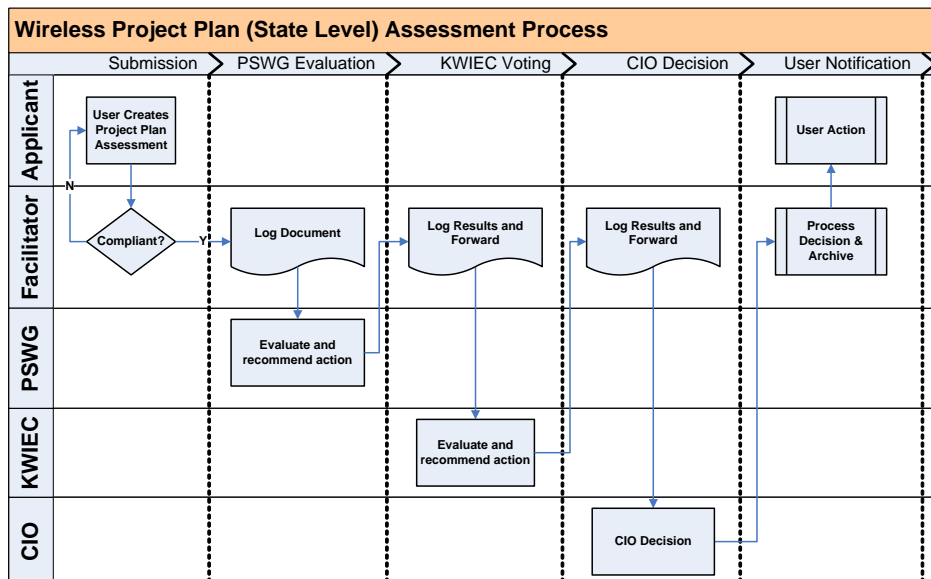


Figure 7 – State Level Assessment Process



# Annual Report on Public Safety

## State Agency Project Assessment Form

This form was originally created in 2004 and updated slightly in 2006. The form is modeled after a business case assessment and requires agencies to justify and fully explain their projects before they will be reviewed and approved. It has been used successfully over the years, and as such this form is not expected to change significantly.

**Assessment of Project Plans for Primary Wireless Public Safety Voice and/or Data Communications Systems**

**1. Purpose of this Document**

In the execution of House Bill 226 of the Kentucky Legislature, "All state agencies in the Commonwealth shall present all project plans for primary wireless public safety voice or data communications systems for review and recommendation by the committee, and the committee shall forward the plans to the chief information officer for final approval. Local government entities shall present project plans for primary wireless public safety voice or data communications systems for review and recommendation by the Kentucky Wireless Interoperability Executive Committee."

This assessment will aid the Kentucky Wireless Interoperability Executive Committee to review and make recommendations regarding project plans for primary wireless public safety voice or data communications systems. It will also aid the Chief Information Officer in making a determination of whether state agencies' project plans meet the architecture and standards for primary wireless public safety voice or data communications systems.

**2. General Information**

Project Name: \_\_\_\_\_ Date Submitted: \_\_\_\_\_

Controlling Agency Name: \_\_\_\_\_

Street Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

State Agency: Yes \_\_\_\_\_

**3. Project Business Vision Summary**

Why do you need a new wireless communication system?

Our current radio equipment is not capable of communicating with all of our mutual aid agencies without relaying information through one or more dispatch centers.

Figure 8 – State Agency Project Form

# Annual Report on Public Safety

## Project Reviews of Grant Submissions

Following last year's successful project grants reviews, the Public Safety Working Group led by the State Wireless Interoperability Coordinator met again for three days this year to review over 180 communications related grants submitted to the Kentucky Office of Homeland Security (KOHS). As they did last year, they read each grant for technical accuracy and provided signed letters of recommendation to the Director of Homeland Security at the conclusion of their reviews. More than this, they evaluated each application for compliance with KWIEC Mandates and the Office of Emergency Communications P-25 grant guidance and diligently enforced the rules laid out.

Since the OEC guidance allowed for compelling reasons not to use P-25, the KWIEC (as shown in the P-25 flowchart elsewhere in this document) allowed cases where agencies not deploying P-25 would be grandfathered since it simply did not make sense to require these agencies to scrap their projects at that point. Any agency wishing to deploy completely new systems was of course required to comply with the OEC non-proprietary guidance to minimize interoperability problems.

It was hoped that this process would aid KOHS in making grant decisions on all communications projects reviewed, and indeed, once again the process was deemed beneficial, and the group received thanks from the Director of KOHS.

The group's recommendations to KOHS prioritize federal mandates and while not obligatory, if followed this strategy will ultimately give Kentucky the greatest chance to meet these challenging deadlines.

Just as the Public Safety Working Group did this year, a member of the PSWG will accompany the grants managers for next year's regional grant workshops.

**Kentucky**  
OFFICE OF HOMELAND SECURITY

**PUBLIC SAFETY WORKGROUP REVIEW**

Project Number: \_\_\_\_\_ Date Reviewed: July 8, 2009

(APPLICANT AGENCY) Letcher County Fiscal Court

TYPE OF PROJECT: Radio

Public Safety Workgroup	
<input checked="" type="checkbox"/> Recommended for approval	<input checked="" type="checkbox"/> Recommended for partial approval
<input checked="" type="checkbox"/> Recommended for disapproval	<input checked="" type="checkbox"/> Recommended for partial approval

Recommendations: \_\_\_\_\_

For Application Will return to be similar to this. Can they partner with others?

or return to the original agency for review of the project

State Wireless Interoperability Coordinator, Public Safety Working Group

**Kentucky**

# Annual Report on Public Safety

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## **KWIEC GOALS**

Each year the KWIEC adopts goals where KWIEC members, the Public Safety Working Group, or the KWIEC Facilitator are tasked to monitor, evaluate, or complete them. Along with the KWIEC mandates, progress toward these goals is briefed at each quarterly meeting. Of course not all goals are fully met each year, but as with all goals, working toward completing them is beneficial.

## **Goals remaining from 2009**

### **GOAL 3 - Complete the upgrade of the KEWS Eastern Segment**

While the KEWS network is the state's primary public safety infrastructure, the KWIEC has little actual control over the project once it was approved. These goals hinged upon an outside vendor providing guaranteed dates that were unfortunately missed time and again. Fortunately now this system is actually nearing completion, and this goal is expected to be met this year, albeit two years behind schedule.

### **GOAL 4 - Identify immediate-need state level wireless communications projects which are unfunded**

The KWIEC has identified an important project which falls under this category. The existing statewide operational VHF and UHF networks, as well as the statewide Voice Mutual Aid radio system, are made up of hundreds of radios which operate without any type of remote alarm failure warning. That is, the only way that a failure can be identified is for a technician to go to the location and do an on-site visual inspection. Obviously this is not desired, and as such has been identified as a project which should be chartered once funding is available.

# Annual Report on Public Safety

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## **Goals for 2010**

### **GOAL 1 – Endorse a public safety communications standard for digital voice in the commonwealth**

This goal is complete. The KWIEC voted to endorse the APCO Project-25 digital voice standard in March 2010.

### **GOAL 2 – Encourage/push for a public safety broadband data pilot project**

The KWIEC put this goal on hold since there are simply too many unresolved issues and questions surrounding the proposed national broadband data network. The KWIEC initially intended to host a vendor conference to evaluate potential broadband data solutions, but this was delayed to allow time to research what other states find in their pilots.

### **GOAL 3 – Complete the Eastern portion of the KEWS Digital upgrade project**

This goal has been carried forward to 2010 but as mentioned above, is expected to be complete this year.

### **GOAL 4 – Establish trained regional interoperability groups**

This goal is being actively worked by the Public Safety Working Group and is covered in the “Lack of Regional Interoperability Groups” section later in this document.

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## Annual Report on Public Safety

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### Issues Hampering Interoperability in the State

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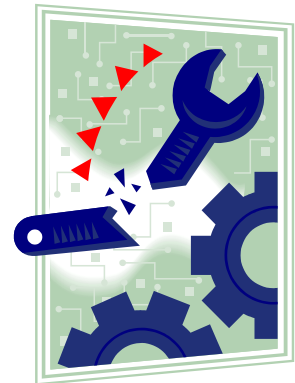
This section summarizes issues which should be brought to the attention of the legislature and its committees responsible for public safety. It is hoped that this section will garner attention and bring about points of discussion from these key bodies.

#### ***Limited KWIEC authority at the Local level***

It should be noted that KRS 42.738 Section 2 (excerpt) reads as follows:

*“Local government entities shall present project plans for primary wireless public safety voice or data communications systems for review and recommendation by the Kentucky Wireless Interoperability Executive Committee.”*

The “review and recommendation” language used in the KRS does not allow the KWIEC statutory authority for disapproval of any proprietary digital system project that local agencies wish to undertake. Simply put - if they can fund it, they can build it, regardless of the communications systems surrounding them or taking larger interoperability concerns into account. Obviously, this allows for an environment where everyone does what’s best for themselves without regard to the larger picture.



#### **Islands of Communications**

While it is expected that proprietary digital systems would be priced below Project 25 systems, some vendors are actually pricing their proprietary digital systems below the price of purely analog systems. These proprietary digital systems are then sold to agencies, allowing vendors to effectively lock the agency into their radio system for augmentations, upgrades, programming, and maintenance. Contrast this to the APCO P-25 standard which allows any radio from any manufacturer to be used, regardless of the system. The agency is free to pursue the best price point from multiple manufacturers as they augment and upgrade their systems.

Since the KWIEC only has review responsibility and authority, many vendors have and will continue to take advantage of this “loophole” when they market their systems to local agencies. Obviously the deployment of non-compatible proprietary systems in effect creates an isolated communications island whereby that agency can only operate

## Annual Report on Public Safety

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with themselves or other agencies that have similar systems. This in turn either isolates this agency or forces other nearby agencies to also deploy this proprietary digital system. Effectively, the vendor wins as the overall interoperability capabilities of the state and agency lose.

### ***Lack of Regional Interoperability Groups***



It has been exceedingly difficult to get the word out to local and regional agencies over the years. The KWIEC identified this as an issue and voted to make it a 2010 goal to resolve, or at least take steps to start to resolve this problem. They tasked the PSWG to evaluate potential solutions which were researched and discussed over several weeks. Several ideas surfaced, the best of which included using existing

regional groups as a means to build these regional communications interoperability groups. Emergency Management, Kentucky State Police, and the Area Development Districts all have effective governing bodies in place which could be made use of, and all were considered. Since regional interoperability is applicable to all first responders, it was decided to recommend the use of the Area Development Districts due to their existing relationships with local agencies, their facilities to conduct meetings, and their involvement in a much broader area of interest than law enforcement or emergency management alone.

There are numerous advantages to using an established body with no clear bias toward any agency or type of agency. Local agencies benefit by having a louder voice and a direct channel to the KWIEC and hopefully will not feel as if they are reporting to a “Big Brother” state agency. The KWIEC benefits by having a regional point of contact which can disseminate information, provide training, and speak for the area at KWIEC meetings.

Initial contact has been made with the Area Development Districts, and a preliminary meeting to discuss forming this agreement will be conducted within the next month. While still months away from an effective partnership, the initial contact has been promising, and the group is confident that a regional partnership can be established this year.

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# Annual Report on Public Safety

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## Conclusion

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Kentucky is certainly moving in the right direction toward interoperability at the state level. Unfortunately, some local agencies seem to be heading in the wrong direction for interoperability. At the very least, the additional voice channels which will be made available at the completion of the UHF Voice Mutual Aid augmentation will help to offset this disturbing trend, however small the impact. Thankfully, the KWIEC made some difficult and unpopular decisions this year by selecting the currently more expensive open standard P-25 communications standard over cheaper stovepipe systems in favor of interoperability. The KWIEC's decisions to endorse the OEC's P-25 funding guidance was upsetting to agencies that were following their vendors' advice in deploying proprietary systems. If followed, the long term benefit of P-25 will far outweigh the short term costs for most agencies. Continuing down the old road where everyone does what they want will ultimately create a nightmare where communications interoperability takes a back seat to shortsighted quick gains. Since systems must be replaced to meet the narrowband standard, now is the time to do it right.

*This document will be available for download as a PDF file from the KWIEC website located at [www.kwiec.ky.gov](http://www.kwiec.ky.gov). For additional information, questions, or comments concerning this document please contact the KWIEC Chairperson [Jim.Barnhart@ky.gov](mailto:Jim.Barnhart@ky.gov) or the KWIEC Facilitator [CharlesR.Miller@ky.gov](mailto:CharlesR.Miller@ky.gov) via email.*





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